

216 Wetlands

216.1 Wetland Identification: The U.S. Army Corps of Engineers (USACE) and the United States Environmental Protection Agency define wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

Bottomland hardwood forests may also be considered jurisdictional wetlands if they meet wetland criteria. Frequently, farm ponds with vegetated margins, farmed wetlands and mowed wetlands, including linear wetlands located in roadside ditches or crop fields are easily overlooked.

There are some general situations in which an area has a strong probability of being a wetland. If any of the following situations occur, the Corps will make a jurisdictional determination based on information supplied by the consultant or agency:

- Area occurs in a floodplain or otherwise has low spots in which water stands at or above the soil surface during the growing season. However, most wetlands lack both standing water and waterlogged soils during at least part of the growing season.
- Area has plant communities that commonly occur in areas having standing water for part of the growing season (e.g., cypress-gum swamps, cordgrass marshes, cattail marshes, bulrush and tule marshes, and sphagnum bogs).
- Area has soils that are called peats or mucks.
- Plant communities found in bottomland hardwood forests may also meet the vegetation criteria for jurisdictional wetland.

Many wetlands can be readily identified by the general situation above. For the boundary of these areas and numerous other wetlands, it is unclear whether these situations occur. Therefore, the Corps uses three (3) characteristics of wetlands when making wetland determinations: vegetation, soil, and hydrology. Unless an area has been altered or is a rare natural situation, wetland indicators of all three (3) characteristics must be present during some portion of the growing season for an area to be a wetland.

216.2 Vegetation Indicators: Nearly 5,000 plant types in the United States may occur in wetlands. These plants, known as hydrophytic vegetation, are listed in the regional publications of the US Fish and Wildlife Service.

Sometimes a determination that wetland vegetation is present can be made by knowing a relatively few plant types that commonly occur in the Project area. For example, cattails, bulrushes, cordgrass, sphagnum moss, bald cypress, willows, mangroves, sedges, rushes, arrowheads, and water plantains usually occur in wetlands.

Other indicators of plants growing in wetlands include trees having shallow root systems, swollen trunks (e.g., bald cypress, tupelo gum), or roots found growing from the plant stem or trunk above the soil surface.

216.3 Soil Indicators: There are approximately 2,000 named soils in the United States that may occur in wetlands. Such soils, called hydric soils, have characteristics that indicate they were developed in conditions where soil oxygen is limited by the presence of saturated soil for long periods during the growing season. If the soils in the Project area are listed as hydric by the US Natural Resource Conservation Service (NRCS), the area might be a wetland.

Official Soil Surveys for Kentucky can be obtained online from the following website: <https://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/>. If the name of the soil in the Project area is not known, an examination of the soil can determine the presence of any hydric soil indicators, including:

- Soil consists predominantly of decomposed plant material (peats or mucks).
- Soil has a thick layer of decomposing plant material on the surface.
- Soil has a bluish gray or gray color below the surface, or the major color of the soil at this depth is dark (brownish-black or black) and dull.
- Soil has the odor of rotten eggs.
- Soil is sandy and has a layer of decomposing plant material at the soil surface.
- Soil is sandy and has dark stains or dark streaks of organic material in the upper layer below the soil surface. These streaks are decomposed plant material attached to the soil particles. When soil from these streaks is rubbed between the fingers, a dark stain is left on the fingers.

216.4 Hydrology Indicators: Wetland hydrology refers to the presence of water at or above the soil surface for a sufficient period of the year to significantly influence the plant types and soils that occur in the area. Although the most reliable evidence of wetland hydrology may be provided by gaging station or groundwater well data, such information is limited for most areas and, when available, requires analysis by trained individuals. Thus, most hydrologic indicators are those that can be observed during field inspection. Most do not reveal the frequency, timing, or duration of flooding or the soil saturation.

However, the following indicators provide some evidence of the periodic presence of flooding or soil saturation:

- Standing or flowing water is observed on the area during the growing season.
- Soil is waterlogged during the growing season.
- Water marks are present on trees or other erect objects. Such marks indicate that water periodically covers the area to the depth shown on the objects.
- Drift lines, which are small piles of debris oriented in the direction of water movement through an area, are present. These often occur along contours and represent the approximate extent of flooding in an area.
- Debris is lodged in trees or piled against other objects by water.
- Thin layers of sediments are deposited on leaves or other objects. Sometimes these become consolidated with small plant parts to form discernible crust on the soil surface.

A qualified professional wetland scientist should be consulted whenever the presence of a wetland is suspected. A wetland delineation prepared by a qualified professional is required for permitting purposes.